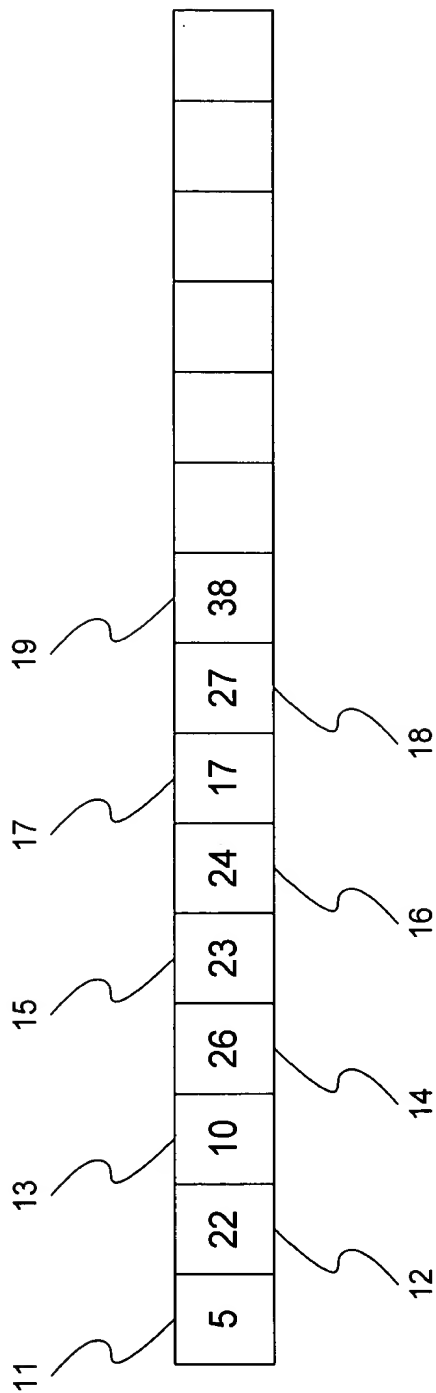
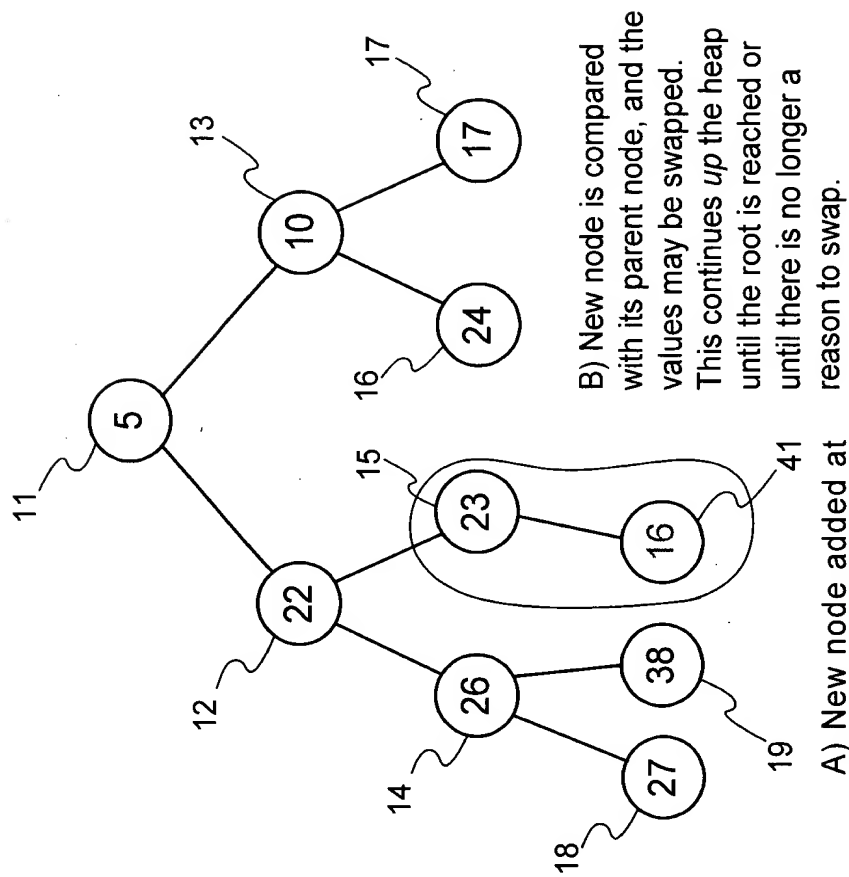


FIG. 1
(Prior Art)



20

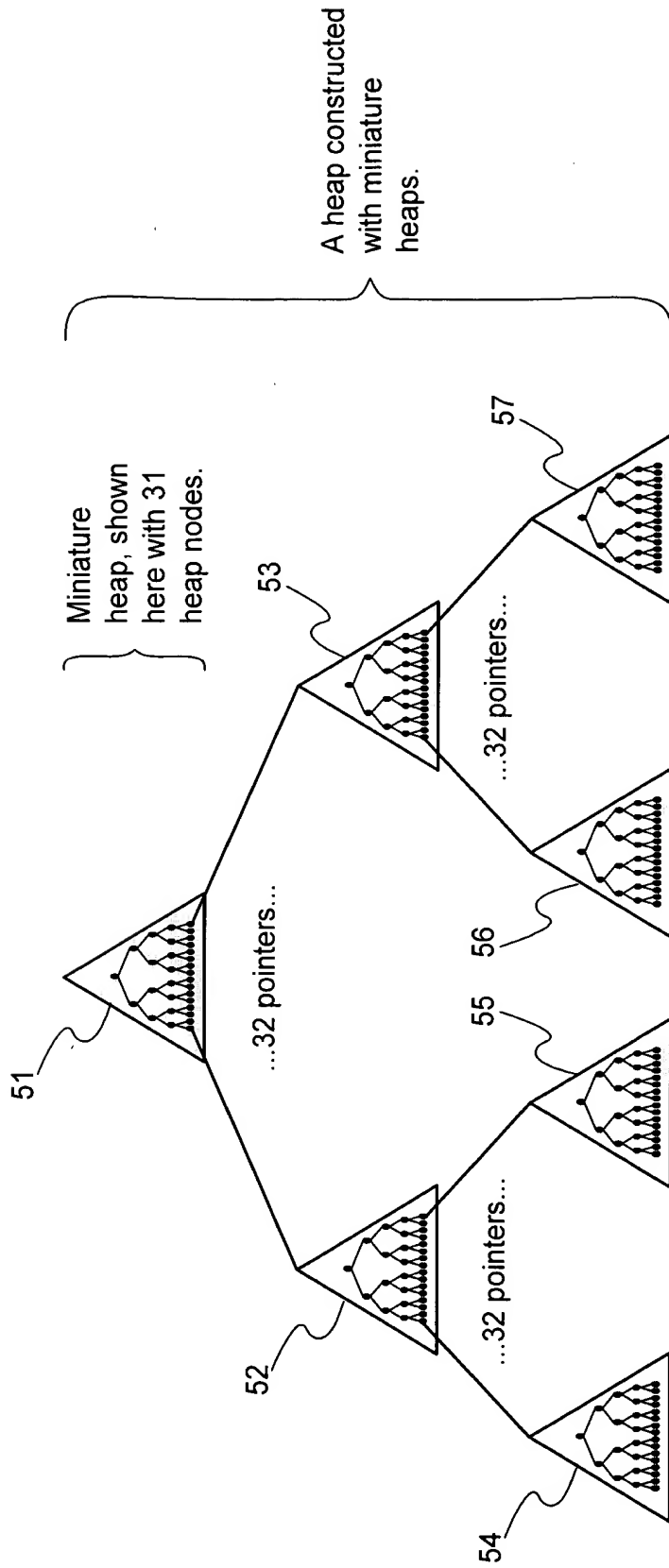
FIG. 2
(Prior Art)



B) New node is compared with its parent node, and the values may be swapped. This continues up the heap until the root is reached or until there is no longer a reason to swap.

A) New node added at bottom-most, left-most "hole" of heap (i.e., the first unused position).

FIG. 4
(Prior Art)



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FIG. 5

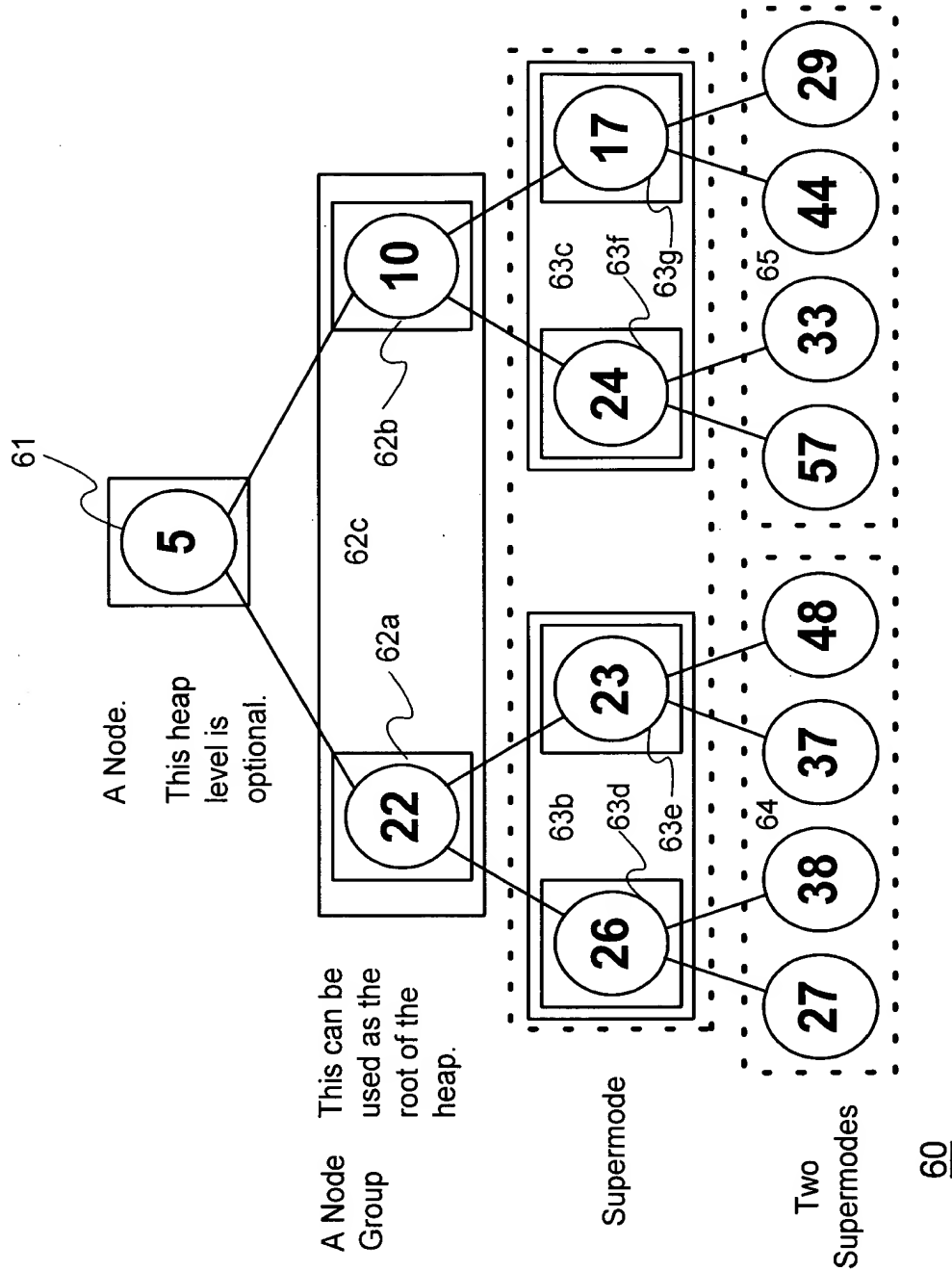


FIG. 6

Each node is stored in a random memory location - i.e., the horizontally or vertically adjacent nodes on the diagram are not stored in contiguous memory.

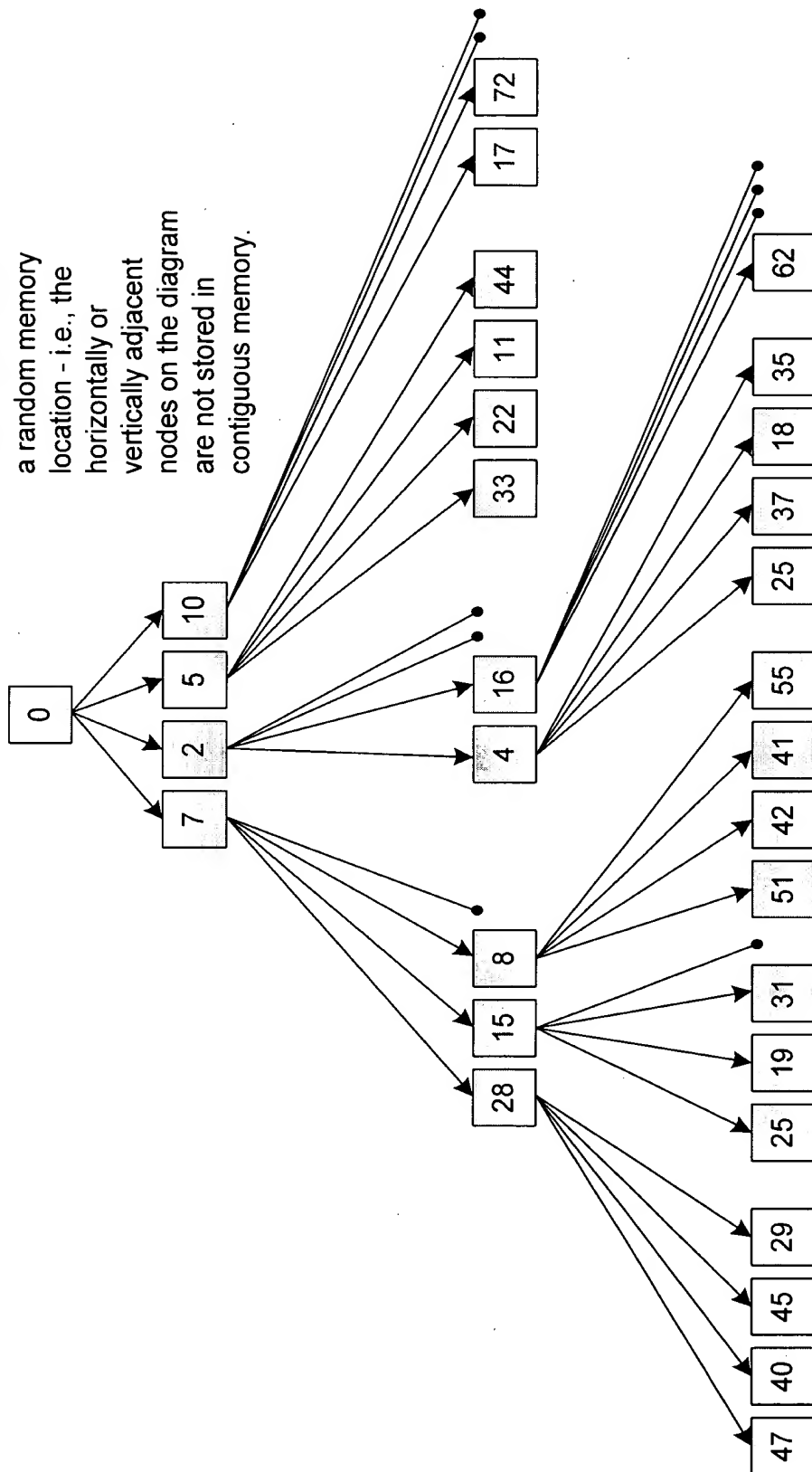


FIG. 7

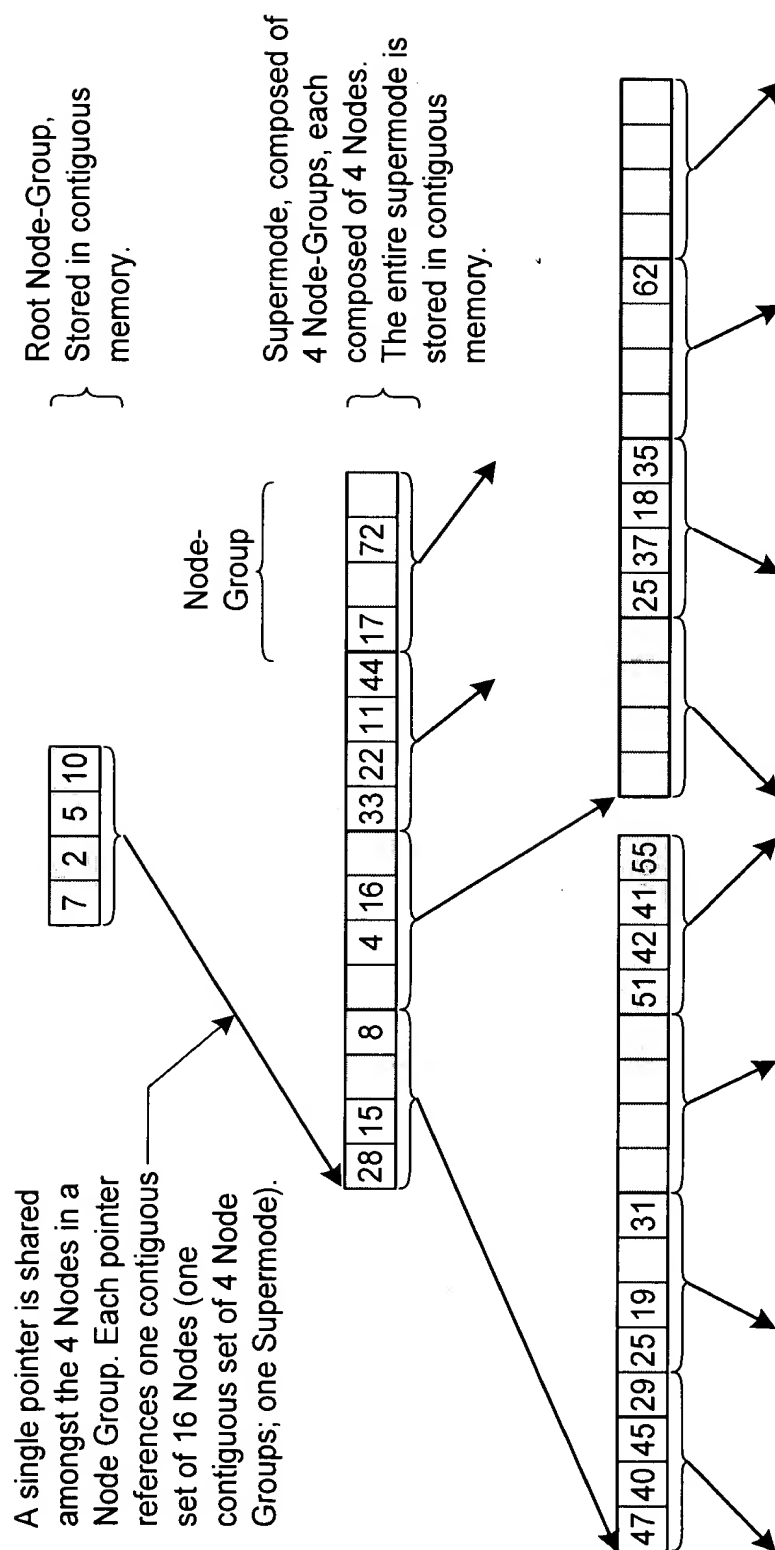


FIG. 8

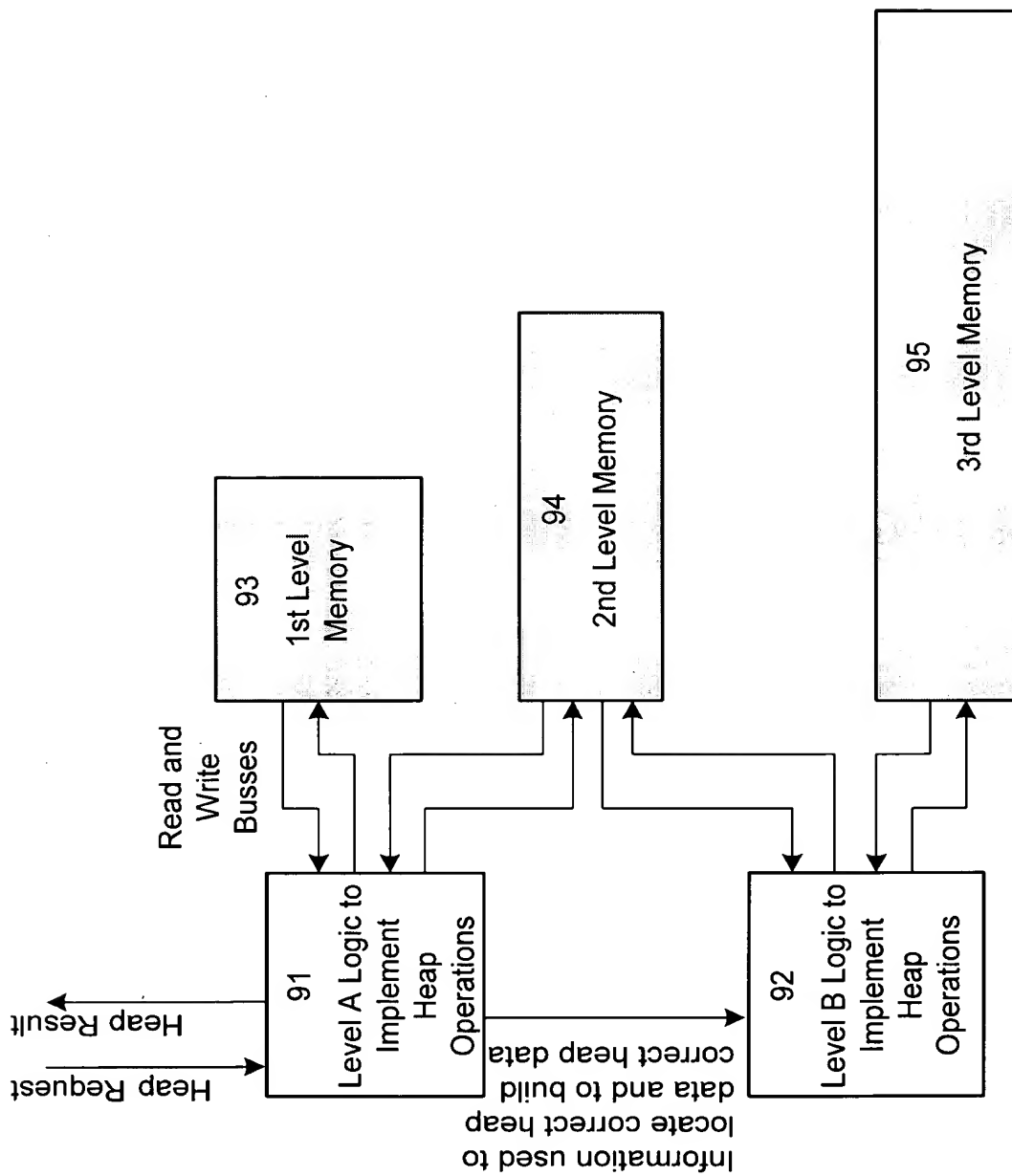
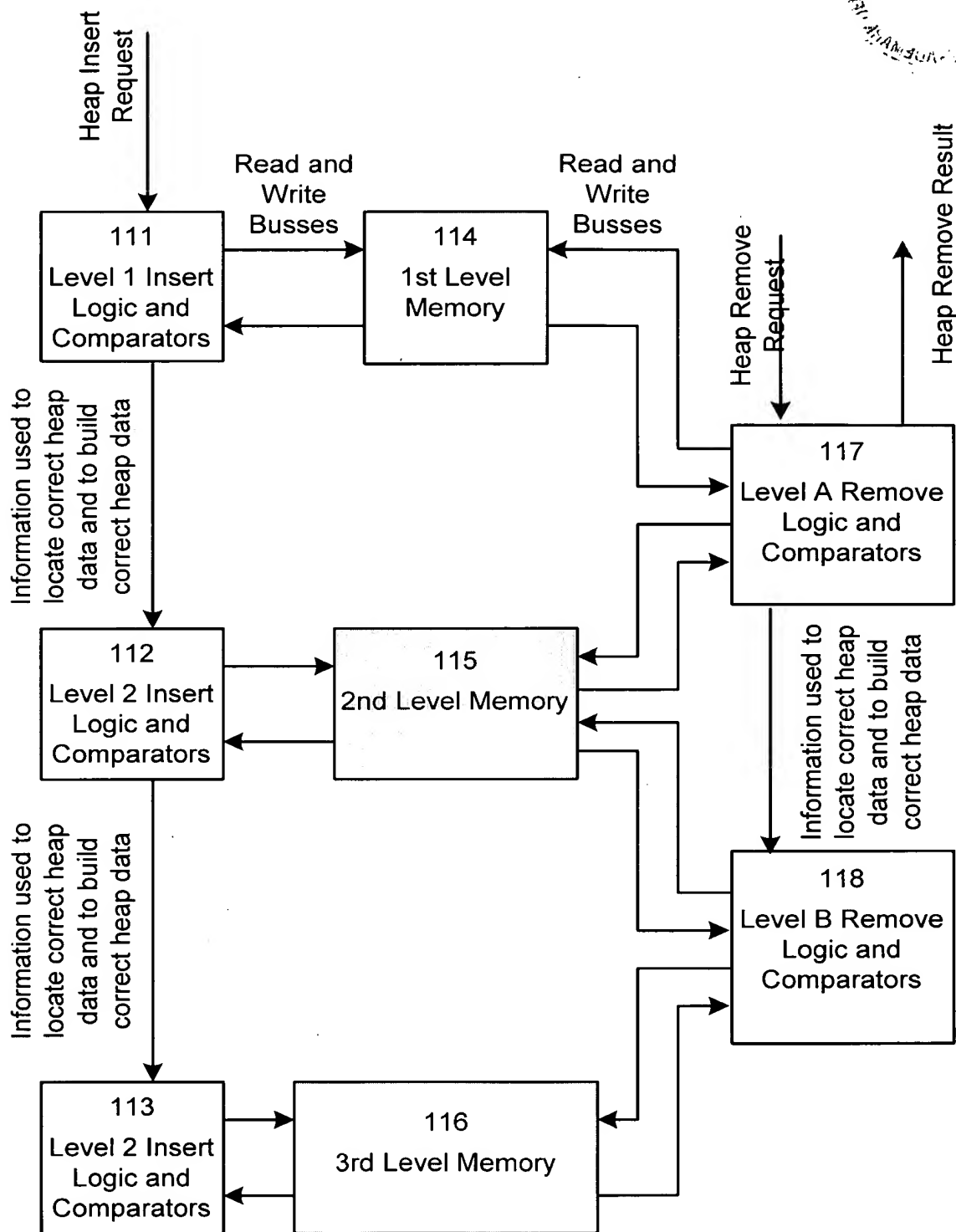


FIG. 9

	time.....>														
Read Level 1 RAM	A	B	C	D	E										
Write Level 1 RAM			A		B	C	D	E							
Level A Comparisons		A	A	B	B	C	C	D	D	E	E				
Read Level 2 RAM		A	B	C		D		E							
Write Level 2 RAM					A		B	C	D	E					
Level B Comparisons			A	A	B	B	C	C	D	D	E	E			
Read Level 3 RAM			A	B	C		D		E						
Write Level 3 RAM						A		B	C	D	E				
Level C Comparisons					A	A	B	B	C	C	D	D	E	E	
Read Level 4 RAM				A	B	C		D		E					
Write Level 4 RAM						A	B	C	D	E					

FIG. 10



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FIG. 11

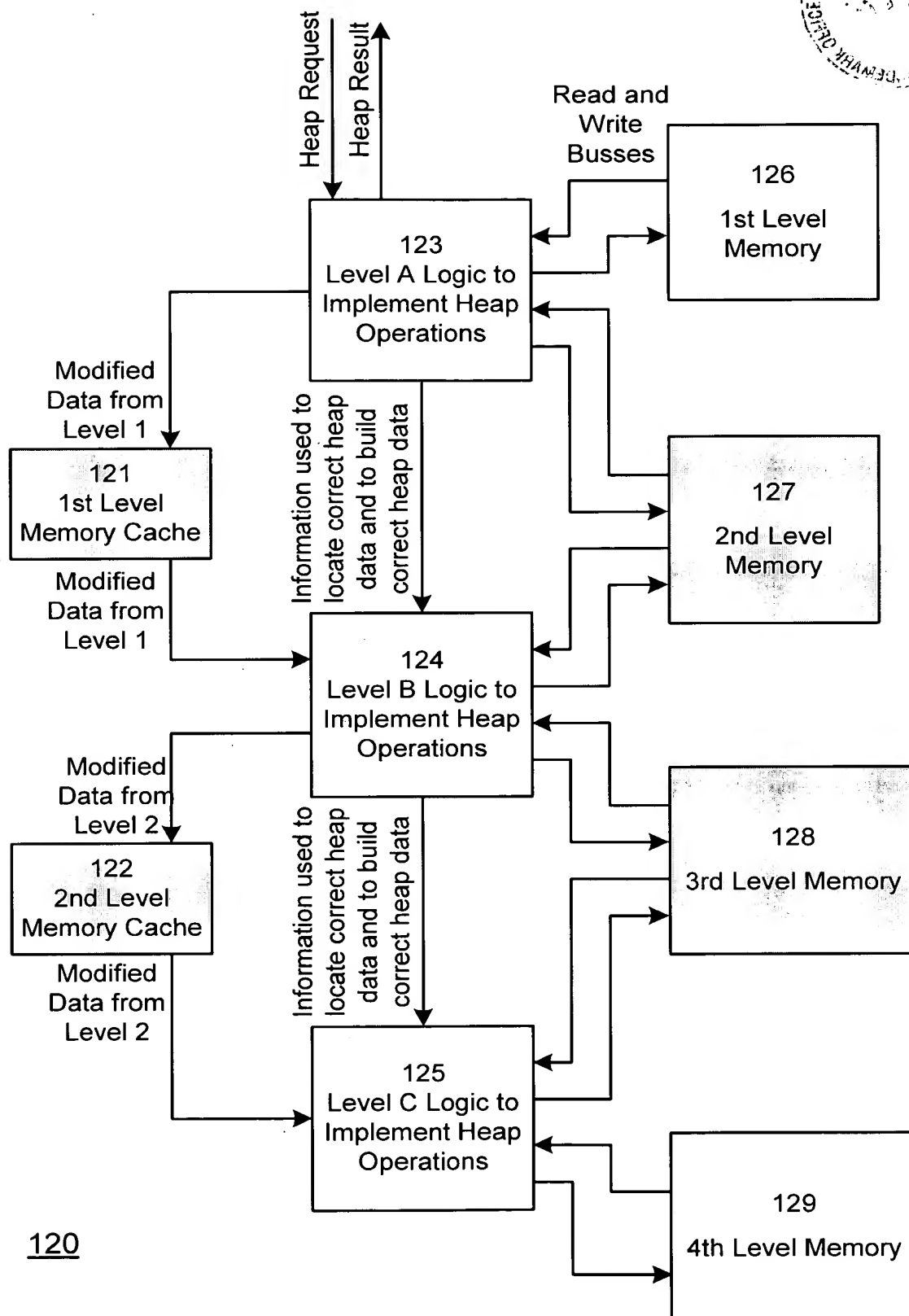


FIG. 12

